

**QUADRENNIAL ENERGY REVIEW - Aug. 21,2014** 

### Information Needs for Energy Mitigation and Siting



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### Information Needs for Energy Mitigation and Siting

- 1. A shared language
- 2. Solid baseline data to guide planning and siting
- 3. Mitigation best practices learning from experiments

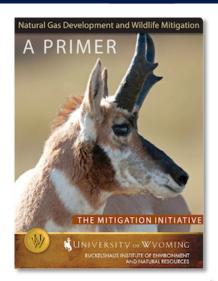


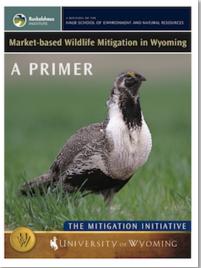




### 1. A shared language

in lieu fee programs disturbance ratios habitat equivalency analysis conservation bank indirect impacts on-site mitigation hierarchy habitat unit habitat exchange off-site payment for ecosystem services
mitigation bank compensatory
direct impacts
wetlands banking in-kind

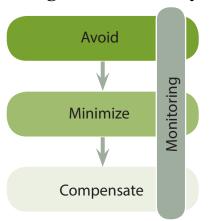






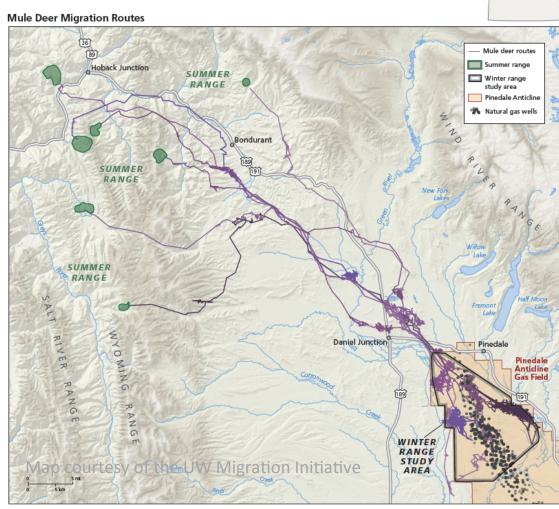
### 2. Baseline data

#### Mitigation hierarchy





## Energy planning to minimize impacts to ungulate migration routes



WYOMING



## 3. Mitigation best practices – learning from our

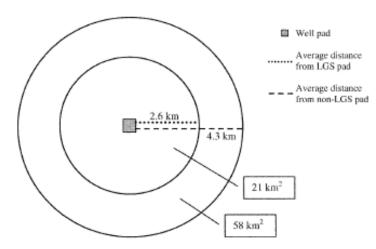
experiments



Fertilizing sagebrush for mule deer habitat improvement – Upper Green River Basin



Liquids Gathering System (LGS)



LGS reduces mule deer displacement (Sawyer et al 2009)

# Thank You